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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/538,040	03/29/2000	Casimir M. Kaczmarczyk	065968.0104	6127

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EXAMINER

ABELSON, RONALD B

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 07/19/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/538,040

Applicant(s)

KACZMARCZYK ET AL.4

Examiner

Ronald Abelson

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 37-51 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7- 9, 14-18, and 20-36 is/are rejected.
- 7) ☒ Claim(s) 3-6 and 10-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2666

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 7, 9, 14-18, 20-24, 26-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Elliott (US 6,614,781).

Regarding claim 1, Elliott teaches a method and apparatus for a soft switch (fig. 4A box 204) interconnecting networks of different transport protocols (IPDC, NMI, MGCP, col. 19 lines 41-43).

The system comprises a signaling agent (fig. 2B box 204) coupled to the networks and operable to receive incoming signaling messages (signaling information is processed by soft switch, col. 32 lines 51-54), translate the incoming signaling messages to a call model event (establish the originating call-half, determine the

Art Unit: 2666

identity of terminating soft switch, col. 32 lines 51-56), and route the call model event (col. 32 lines 58-60).

The system comprises a call agent (fig. 2B box 304) in communication with the signaling agent and operable to receive the call model event (col. 32 lines 54-57), request outgoing resources for establishing data sessions (fig. 62: see connection between soft switch box 204 and resource management box 6204), generate outgoing signaling messages (signaling information is processed by soft switch, col. 32 lines 51-54), and send the outgoing signaling messages to the signaling agent (note bi-directional flow of signaling messages between soft switches 204 and 304), the signaling agent further terminating the data sessions on the requested outgoing resources (tear down, col. 32 lines 5-7).

Regarding claim 27, Elliott teaches a method and apparatus for interconnecting networks of different transport protocols (IPDC, NMI, MGCP, col. 19 lines 41-43).

The system comprises receiving incoming signaling messages (signaling information is processed by soft switch, col. 32 lines 51-54).

Art Unit: 2666

The system comprises translating the incoming signaling messages to a call model event (establish the originating call-half, determine the identity of terminating soft switch, col. 32 lines 51-56)

The system comprises processing / routing the call model events (col. 32 lines 58-60).

The system comprises requesting outgoing resources for establishing data sessions (fig. 62: see connection between soft switch box 204 and resource management box 6204).

The system comprises terminating the data sessions on the requested outgoing resources (tear down, col. 32 lines 5-7).

The system comprises executing a logic control program and processing messages of a particular transport protocol. Note, as stated previously, the system processes messages a multiple protocols (IPDC, NMI, MGCP, col. 19 lines 41-43).

The system parses and formats the messages according to the transport protocol (IPDC, NMI, MGCP, col. 19 lines 41-43). Note, if this were not the case, the soft switch would not understand the messages.

The system filters (col. 226 lines 49-50) and routes the translated messages. Regarding routing, the soft switch

Art Unit: 2666

is an interconnection between gateways (fig. 1, col. 19 lines 41-43).

Regarding claim 34, Elliott teaches a method and apparatus for interconnecting networks of different transport protocols (IPDC, NMI, MGCP, col. 19 lines 41-43).

The system comprises receiving incoming signaling messages (signaling information is processed by soft switch, col. 32 lines 51-54).

The system comprises translating the incoming signaling messages to a call model event (establish the originating call-half, determine the identity of terminating soft switch, col. 32 lines 51-56)

The system comprises processing / routing the call model event (col. 32 lines 58-60).

The system comprises requesting outgoing resources for establishing data sessions (fig. 62: see connection between soft switch box 204 and resource management box 6204).

The system comprises terminating the data sessions on the requested outgoing resources (tear down, col. 32 lines 5-7).

Art Unit: 2666

The system comprises using a protocol-independent logic engine to execute a function specific logic control program to process the call events. Elliott teaches processing of the call events is protocol dependent (ISSC protocol, col. 32 lines 58-60). Note, the examiner maintains that the ISSC protocol is protocol-independent since it is only used for transmitting messages between soft switches and is not used for communication with external networks.

Regarding claims 7 and 24, the signaling protocol is SS7 (col. 4 lines 66-67).

Regarding claims 9 and 26, the signaling protocol is H.323 (col. 40 lines 46-47).

Regarding claims 14 and 31, the networks comprise a PSTN (col. 4 lines 31-34).

Regarding claims 15 and 32, the networks comprise a packet network (col. 4 lines 31-34).

Art Unit: 2666

Regarding claims 16 and 33, the networks comprise a wireless network (cellular (col. 226 lines 45-48)).

Regarding claim 17, the call agent / soft switch comprises using a protocol-independent logic engine to execute a function specific logic control program to process the call events. Elliott teaches processing of the call events is protocol dependent (ISSC protocol, col. 32 lines 58-60). Note, the examiner maintains that the ISSC protocol is protocol-independent since it is only used for transmitting messages between soft switches and is not used for communication with external networks.

Regarding claims 18 and 35, the soft switch comprises a billing sub-system in communication with the call agent / soft switch and operable to generate call detail records (col. 21 lines 11-15).

Regarding claim 20, requesting and receiving routing information to establish data sessions (fig. 62 box 212).

Regarding claim 21, requesting and receiving address resolution to establish data sessions (fig. 62 box 212).

Art Unit: 2666

Regarding claim 22, requesting and receiving address locations of called parties in external networks to establish data sessions (fig. 62 box 212).

Regarding claim 23, executing a logic control program and processing the signaling messages of a particular signaling protocol (signaling information is processed by soft switch, col. 32 lines 51-54) and parsing and formatting signaling messages according to the signaling protocol (signaling information is processed by soft switch, col. 32 lines 51-54). Note, given the soft switch processes the signaling information, the examiner maintains the soft switch is performing the steps of parsing and formatting.

Regarding claim 28, receiving and transmitting MGCP messages (col. 5 lines 23-25).

Regarding claim 29, receiving and transmitting IPDC messages (col. 5 lines 17-21).

Art Unit: 2666

Regarding claim 30, receiving and transmitting SGCP messages (col. 140 lines 28-33).

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott as applied to claim 1 above, and further in view of Hayter (GB 2,326,054).

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Regarding claim 2, although Elliott teaches a soft switch (fig. 62 box 62) in communication with an external resource manager (fig. 62 box 6204) operable to receive outgoing resource requests from the call agent / soft

Art Unit: 2666

switch, and provide outgoing resource availability to the call agent / soft switch, Elliott fails to teach the soft switch comprises a resource manager.

Hayter teaches a switch comprising a resource manager / bandwidth allocator operable to receive requests and provide availability responses (fig. 1 box 24, pg. 12 lines 19-26).

Therefore it would have been obvious to one of ordinary skill in the art, having both Elliott and Hayter before him/her and with the teachings [a] as shown by Elliott, a soft switch interconnecting networks of different transport protocols, and [b] as shown by Hayter, a switch comprising a resource manager / bandwidth allocator operable to receive requests and provide availability responses, to be motivated to modify the system of Elliott by integrating the resource manager (Elliott: fig. 62 box 6204) within the soft switch. This modification can be performed in software. This would improve the system since information regarding the resource management would be obtained internally and would no longer be dependent on an external source.

Art Unit: 2666

5. Claims 8 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott as applied to claim 1 and 27 above, and further in view of Schuster (US 6,650,619).

Elliott is silent on signaling protocol is session initiation protocol.

Schuster teaches session initiation protocol (col. 1 lines 40-42).

Therefore it would have been obvious to one of ordinary skill in the art, having both Elliott and Schuster before him/her and with the teachings [a] as shown by Elliott, a soft switch interconnecting networks of different transport protocols, and [b] as shown by Schuster, session initiation protocol, to be motivated to modify the system of Elliott by performing a software upgrade to the soft switch to allow the soft switch to process session initiation protocol. This would improve the system since session initiation protocol can support Internet telephony.

6. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott as applied to claim 34 above, and further in view of Capers (US 6,418,205).

Art Unit: 2666

Elliott is silent on verifying an incoming circuit is in a valid state.

Capers teaches verifying an incoming circuit is in a valid state (col. 9 lines 21-24).

Therefore it would have been obvious to one of ordinary skill in the art, having both Elliott and Capers before him/her and with the teachings [a] as shown by Elliott, a soft switch interconnecting networks of different transport protocols, and [b] as shown by Capers, general validation to ensure that the SS7 ISUP message does not include a CIC of a circuit not equipped for the platform, to be motivated to modify the system of Elliott by incorporating a software routine to the soft switch to ensure that the SS7 ISUP message does not include a CIC of a circuit not equipped for the soft switch. This would improve the system by ensuring that the soft switch is capable of processing the SS7 ISUP messages sent to it.

Allowable Subject Matter

7. Claims 37-51 are allowed.
8. Claims 3-6 and 10-13 are objected to as being dependent upon a rejected base claim, but would be

Art Unit: 2666

allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 3, although Elliott teaches an external network directory server operable to receive request for routing information (fig. 62 box 212) in communication with the soft switch, nothing in the prior art of the record teaches or fairly suggests the soft switch comprises a network directory server operable to receive requests for routing information to establish data sessions from the call agent, and provide routing information to the call agent.

Regarding claim 4, although Elliott teaches an external network directory server operable to receive request for address resolution (fig. 62 box 212) in communication with the soft switch, nothing in the prior art of the record teaches or fairly suggests the soft switch comprises a network directory server operable to receive requests for address resolution to establish data sessions from the call agent, and provide address resolution responses to the call agent.

Art Unit: 2666

Regarding claim 5, although Elliott teaches an external network gateway operable to receive requests for address locations of called parties in external networks to establish data sessions and provide address locations (fig. 2B box 232, 234), nothing in the prior art of the record teaches or fairly suggests the soft switch comprises a network gateway operable to receive requests for address locations of called parties in external networks to establish data sessions from the call agent, and provide address locations to the call agent.

Regarding claims 6 and 10, although Elliott teaches parsing and formatting signaling messages according to the signaling protocol, (IPDC, NMI, MGCP, col. 19 lines 41-43), nothing in the prior art of reference teaches or fairly suggests the soft switch comprising a codec specialized in the signal protocol of an access network and operable to parse and format signaling messages according to the signaling protocol and a filter operable to route signaling messages from the codec to the logic control.

Art Unit: 2666

Regarding claim 37, Elliott teaches a method and apparatus for interconnecting networks of different signaling protocols (SS7, ISDN, col. 32 lines 7-10).

The system comprises a signaling agent (fig. 2B box 204) receiving incoming signaling messages (signaling information is processed by soft switch, col. 32 lines 51-54), translating the incoming signaling messages to a call model event (establish the originating call-half, determine the identity of terminating soft switch, col. 32 lines 51-56), and routing the call model event (col. 32 lines 58-60).

The system comprises a call agent (fig. 2B box 304) in communication with the signaling agent and operable to receive the call model event (col. 32 lines 54-57), generate a request outgoing resources for establishing data sessions (fig. 62: see connection between soft switch box 204 and resource management box 6204).

The network gateway agent operable to receive a request to establish a data session on the selected outgoing resource, and set up an open session (set up, col. 32 lines 5-7).

Art Unit: 2666

The call agent is operable to terminate the data sessions on the requested outgoing resources (tear down, col. 32 lines 5-7).

Although Elliott teaches a soft switch (fig. 62 box 204) server (fig. 62 box 254), nothing in the prior art of the record teaches or fairly suggests a softswitch comprising a network directory server in communication with the call agent and operable to receive the request for an outgoing resource, and provide information on the outgoing resource in view of the prior art teachings of Elliott, in combination with all the other limitations listed in the claim. Note, the prior art does not teach a soft switch comprising a server.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone number for the

Art Unit: 2666

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ronald Abelson
Examiner
Art Unit 2666

7/12/04



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